

resistance value of the resistors included in the H bridge is 10.2 [KΩ] in normal time whereas 13.6 [KΩ] in an open failure occurrence time, and thus detection of the combined resistance value by the control unit **51** via the anomaly detection unit **53** enables determination as to whether or not a physical error has occurred. When the anomaly detection unit **53** detects an occurrence of a physical error (“YES” in step **S107**), the control unit **51** drives the electric motor **31** in reverse to release the clutch in consideration of a temporary connection failure (step **S108**), and stops the winding control of the seat belt (step **S106**).

Effect of Embodiment

**[0032]** As described above, in the seat belt device **10** according to the present embodiment, after the control unit (pretensioner unit **50R**) receives information on collision prediction from the collision prediction unit **30** via the network (the CAN bus **60**), even when a communication failure occurs between the control unit and the collision prediction unit **30**, the control unit performs control to cause the electric motor **31** to continue winding control. In addition, after the control unit receives information on collision prediction, in the case where an anomaly is detected by the anomaly detection unit **53**, the control unit performs control to stop the winding drive of the belt reel.

**[0033]** Thus, for instance, even when a state changes from pre-crash to collision occurrence and a communication error occurs in the CAN bus **60**, the occupant may be restrained continuously, and when a disconnection is detected after a collision actually has occurred, a command for reverse operation is issued to release the clutch in consideration of a temporary connection failure, then the winding control of the seat belt is stopped, and thus emission of smoke is avoidable. Consequently, it is possible to provide the seat belt device **10**

that is capable of applying a restraining force to an occupant properly regardless of the type of error even in the case of a high emergency level.

What is claimed is:

1. A seat belt device provided to a vehicle, comprising:
  - a belt reel that winds a webbing;
  - an electric motor that drives the belt reel to wind the webbing in a controlled manner;
  - a collision predictor that generates a pre-collision signal when a collision of the vehicle with an object is predicted; and
  - a controller that is connected to the collision predictor via a network, that is connected to the electric motor, and that is configured to control the electric motor to start the winding of the webbing when the controller receives the pre-collision signal from the collision predictor, wherein after the controller starts the winding of the webbing upon receiving the pre-collision signal from the collision predictor via the network, even if a communication failure in the network is detected, the controller controls the electric motor to continue the winding of the webbing.
2. The seat belt device according to claim 1, further comprising
  - an anomaly detector that detects an occurrence of anomaly in a signal line that connects the controller and the electric motor,
  - wherein after the controller starts the winding of the webbing upon receiving the pre-collision signal from the collision predictor via the network, if the anomaly detector detects the occurrence of anomaly, the controller controls the electric motor to stop the winding of the webbing.

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